

## **REMARKS**

### **I. Preliminary Matters**

Claims 1-15 and 33-47 are pending in the application. Of these, claims 39-43 are objected to and all claims are rejected. New claims 48-57 have been added to describe the invention with more particularity.

### **II. Claim Objections**

Claims 39-43 are objected to under 37 C.F.R. § 1.75(c) as being of improper dependent form for failing to further limit the subject matter of a previous claim.

37 C.F.R. § 1.75 (c) recites:

“Claims in dependent form shall be construed to include all the limitations of the claim incorporated by reference into the dependent claim.”

Claims 39-43 depend variously from claims 1-3. Claims 39-43, written in dependant form should be construed to include all limitations of the claims incorporated by reference, claims 1-3. Therefore, claims 39-43 overcome the objection.

Furthermore, claim 39 recites:

“An apparatus for displaying fluorescence image as defined in Claim 1, wherein in the abnormal light affected area, the fluorescence components of the fluorescence having been produced from the living body tissues exposed to excitation light is greater than the reflected reference light.”

Claim 39 recites many features of claim 1 such as “the abnormal light affected area,” or any another feature for which antecedent basis is provided. The recitations further limit the subject matter of a previous claim. The Examiner contends the claim describes a natural result. However, it is not a natural result that the relative values of normal or diseased tissue will bear

the relationship to a reference light as claimed. The Applicant respectfully submit that the objection to claim 39 should be withdrawn.

The objections to claims 40-43 should be removed for the same reasons.

### **III. Claim Rejections Under 35 U.S.C. § 101**

Claims 39-43 are rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter. Because the base claims 1-3 are directed to statutory subject matter, these dependant claims also describe statutory subject matter. The claims further describe statutory subject matter for the reasons discussed above and for the reasons of record.

Moreover, the Examiner has not provided evidence showing reason to doubt the utility of claims 39-43 to one of ordinary skill in the art.

“The examiner has the initial burden of challenging an asserted utility. Only after the examiner has provided evidence showing that one of ordinary skill in the art would reasonably doubt the asserted utility does the burden shift to the applicant to provide rebuttal evidence sufficient to convince one of ordinary skill in the art of the invention's asserted utility.” *In re Swartz*, 232 F.3d 862, 863, 56 USPQ2d 1703, 1704 (Fed. Cir. 2000); *In re Brana*, 51 F.3d 1560, 1566, 34 USPQ2d 1436, 1441 (Fed. Cir. 1995) (citing *In re Bundy*, 642 F.2d 430, 433, 209 USPQ 48, 51 (CCPA 1981)). M.P.E.P. § 2164.07.

The Examiner rejects claims 39-43 because the Examiner alleges that these claims state the natural response of the tissue to excitation light (Office Action, page 2). The re-recitation of claim language does not arise to the level of providing evidence showing that one of ordinary skill in the art would reasonably doubt the asserted utility. Therefore, the rejection is improper and presenting rebuttal evidence to convince one of ordinary skill in the art of the invention's asserted utility is not necessary.

#### IV. Claim Rejections Under 35 U.S.C. § 103

Claims 1-15 and 33-47 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Palcic et al (U.S. Patent No. 5,827,190) in view of Richards-Kortum et al (U.S. Patent No. 5,421,337). The Applicant respectfully traverses the rejection.

Claim 1 recites, *inter alia*, a method of display a florescence image:

"(i) making a judgment as to whether each of image areas embedded in the tissuc condition image is an abnormal light affected area, which has been affected by light having an intensity equal to at least a specified value, or a normal light detection area, which has been formed with light having an intensity lower than the specified value, the judgment being made in accordance with at least one image, which is among the first fluorescence image, the second fluorescence image, and the reflected reference light image"

The Examiner rejects claim 1 because the Examiner alleges the specified value would have been obvious to one of ordinary skill in the art at the time the invention was made. (Office Action, page 3). The Examiner concedes this feature is not taught or suggested in Palcic. (Office Action, page 3).

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in Applicant's disclosure. MPEP 2143 citing *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Palcic teaches an endoscope having an integrated CCD sensor where the intensity of a disease area will be reduced and normal tissue's intensity will be increased.<sup>1</sup> Richards-Kortum teaches a method and apparatus of spectral diagnosis of diseased tissue. Richards-Kortum specifically teaches a fluorescence intensity of normal tissue is greater than adenomas (diseased tissue) in the 400-420 nm range, but lower in the 430-480 nm range.<sup>2</sup> Because Richards-Kortum discloses both higher and lower intensities for adenomas and Palcic discloses only lower intensities for diseased tissues Palcic teaches away from the teachings in Richards-Kortum. Therefore, there is no suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the reference teachings. Therefore, claim 1 is patentable.

Claim 2 recites similar limitations as claim 1 and is patentable for at least analogous reasons.

Claims 3-15, and 33-47 depend from claims 1-2 and are patentable for at least the same reasons.

## V. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the

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<sup>1</sup> "If diseased tissue is present, the intensity of the green autofluorescence image will be reduced over the diseased area while the remittance light image will be substantially unaffected. If tissue is normal, the intensity of the green autofluorescence image will be increased relative to the diseased tissue and the remittance light image will continue to be substantially unaffected." (Palcic, col. 6, lines 44-51).

<sup>2</sup> "The downward sloping region from 400-420 nm reflects the blue region of the spectrum in which the relative fluorescence intensity of the adenomas is relatively greater than that of normal tissues. The flat region from 430-480 nm represents peak at 460 nm, where the fluorescence intensity of normal tissue is greater than that of adenomatous tissue." (Richards-Kortum, col. 13, lines 6-11).

Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.


Respectfully submitted,

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